

# Effects of Interpersonal Relationships to Nurse's Job Satisfaction: An Empirical Test of Herzberg's Theory

著者	ADACHI Hisako, OYAMADA Takaaki
journal or publication title	Tohoku psychologica folia
volume	56
page range	40-48
year	1998-07-01
URL	<a href="http://hdl.handle.net/10097/56199">http://hdl.handle.net/10097/56199</a>

# EFFECTS OF INTERPERSONAL RELATIONSHIPS TO NURSE'S JOB SATISFACTION: AN EMPIRICAL TEST OF HERZBERG'S THEORY

By

ADACHI HISAKO (足立久子)<sup>1</sup> and OYAMADA TAKAAKI (小山田隆明)<sup>2</sup>

(Gifu University)

This study aimed to investigate the effects of interpersonal relationships to job satisfaction of nurses that was not explained in full by Herzberg's Motivation-Hygiene (M-H) theory. From the results of two experiments by using questionnaires to two hundred eighty-six nurses, it was found that the achievement and the recognition of motivation factor related closely to the interpersonal relation of hygiene factor of the M-H theory, and that the achievement associated with other person's assistance, the recognition (included trusts) with good estimation for nursing knowledge and skills, and nurses' personality.

These results suggested that the positive interpersonal relationships was an accelerator or a positive reinforcer to fulfill the factors of the achievement and the recognition (included trusts) of the M-H theory.

**Key words:** job satisfaction, nurse, interpersonal relationships, Herzberg's theory.

## INTRODUCTION

The motivation-hygiene (M-H) theory proposed by Herzberg, Mausner, and Synderman in 1959 has been an influential theory in studies of the job satisfaction. The M-H theory states that job satisfaction and job dissatisfaction arise from separate and independent dimensions: one dimension is related to job satisfaction, and the other dimension to job dissatisfaction. Therefore, job dissatisfaction isn't on the opposite end of job satisfaction at the same dimension. And job satisfaction arises from motivation factors, whereas job dissatisfaction arises from hygiene factors.

There are few studies of the nurse's job satisfaction based on the M-H theory (Adachi & Oyamada, 1996,1997; Anderson, 1971; Cronin-Stubbs, 1977; Hines, 1974; Kosmo & Behing, 1969; White & Maguire, 1973). And contrary to the prediction of the M-H theory, White and Maguire (1973) and Hines (1974) reported that nurse's job satisfaction arose from interpersonal relation factors. Also Adachi and Oyamada (1997) found the same results on nurse's job satisfaction. Then, the present study aims to investigate why the interpersonal relation factors cause job satisfaction in nurses.

1. College of Medical Science, Gifu University, 70-1 Kitano-machi, Gifu 500-8807, Japan.

2. Department of Lifelong Education, Faculty of Education, Gifu University, 1-1 Yanagido, Gifu 501-1112, Japan.

## EXPERIMENT 1

## PURPOSE

The purpose of Experiment 1 was to investigate which factors of the M-H theory led nurses to job satisfaction, and to measure effects of sixteen factors of the M-H theory and two new interpersonal relation factors of a patient and a doctor to nurse's job satisfaction. Then, the following two hypotheses were tested: (1) factors of interpersonal relation among patients, supervisors, peers, subordinates and doctors cause job satisfaction in nurses. (2) some of motivation factors of the M-H theory relate closely to interpersonal relation's factors on nurse's job satisfaction

## METHOD

*Subjects:* Subjects consisted of one hundred fifty-one female registered nurses, namely sixty-four staff nurses, fifty-seven head nurses and thirty nurse managers (supervisors) at general hospitals.

*Questionnaire:* The questionnaire consisted seventy-six questions concerning eighteen factors; namely six motivation factors (achievement, recognition, responsibility, advancement, work itself and possibility of growth) and ten hygiene factors (supervision-technical, company policy and administration, status, working condition, interpersonal relations, job security included welfare and salary, personal life) of the M-H theory; and two factors of interpersonal relation-patient and -doctor that were considered as significant others in nurse's job satisfaction.

The items of the questionnaire were selected from items developed by Nishikawa (1971), Stamps (1978) and Adachi and Oyamada (1996) according to the analysis criteria (first level) of factors described by Herzberg, Mausner, and Snyderman (1993), and were slightly modified. Furthermore, the questionnaire consisted of four items for each of sixteen factors, five items for personal life and seven items for job security included welfare.

The questionnaire had two parts. Firstly, subjects were asked to choose the item (question) that they had ever experienced job satisfaction. Secondly, they were asked to rate the degree of job satisfaction in three point scale (3: most, 2: more, 1: a little satisfying).

*Procedures:* This research was conducted in July, 1997. The response to each item coded as follows: (1) When subjects reported "experienced" over three quarters of items in each factor, the factor was coded as satisfier. (2) Job satisfaction scores were the sum of three point scale scores on items of each factor.

## RESULTS

The factors which caused job satisfaction to nurses and mean job satisfaction scores in each factor were showed in Table 1. The results were as follows.

Table 1. Frequencies of satisfactory experiences and mean satisfaction scores.

factors	satisfactory experiences			mean satisfaction scores		
	staff nurse (N = 64)	head nurse (N = 57)	nurse manager (N = 30)	staff nurse (N = 64)	head nurse (N = 57)	nurse manager (N = 30)
achievement	89.1*	94.7*	93.3*	7.32 (2.20)	7.98 (2.31)	7.82 (1.65)
recognition	84.2*	87.7*	96.7*	6.98 (2.20)	7.98 (2.31)	7.82 (1.65)
responsibility	53.1	84.2*	83.3*	6.00 (1.96)	6.63 (2.10)	6.40 (1.85)
advancement	—	63.2	73.3	—	5.72 (2.13)	5.27 (1.81)
work itself	70.3*	73.7*	76.7*	6.38 (2.29)	6.83 (2.51)	6.13 (1.96)
possibility of growth	76.6*	80.7*	96.7*	7.14 (2.32)	7.57 (1.81)	7.03 (2.08)
supervision-technical	75.0*	78.9*	83.3*	7.19 (2.35)	6.91 (2.00)	6.76 (2.29)
company policy	48.4	56.1	76.7*	6.45 (2.72)	6.31 (1.99)	6.61 (2.32)
administration						
working condition	59.3	63.2	60.0	6.50 (2.76)	6.06 (2.13)	6.28 (2.45)
interpersonal relations						
- patient	95.3*	98.2*	96.7*	8.20 (2.42)	8.70 (1.84)	7.97 (2.25)
- supervisor	78.1*	84.2*	93.3*	6.78 (2.73)	7.71 (2.27)	6.36 (2.72)
- peer	85.9*	91.2*	96.7*	7.05 (2.12)	7.08 (2.01)	6.38 (2.04)
- subordinate	82.8*	93.0*	96.7*	6.19 (2.32)	6.99 (2.21)	6.62 (2.58)
- doctor	75.0*	73.7*	86.7*	6.54 (2.72)	6.67 (2.11)	6.00 (2.04)
status	—	29.6	23.3	—	4.94 (2.07)	4.43 (1.68)
job security	29.6	40.4	36.7	9.58 (3.99)	8.09 (2.93)	7.73 (2.42)
salary	57.8	56.1	53.3	7.43 (3.11)	6.16 (2.73)	5.38 (1.76)

job security : summation of 7 items \* $p < .01$ 

(1) *On factors which caused job satisfaction in over eighty percentages of nurses:* Five factors of achievement, recognition, interpersonal relations-patient, -peer, and -subordinate caused job satisfaction in all nurses. Three factors of responsibility, possibility of growth and the interpersonal relation-supervisor caused job satisfaction in head and nurse managers. And two factors of interpersonal relation-doctor and supervision-technical caused job satisfaction only in nurse managers.

There were significant differences among staff nurses, head nurses and nurse managers on the factors of recognition, possibility of growth, company policy and administration. Two factors of possibility of growth, company policy and administration were significantly satisfactory to nurse managers in comparison with staff and head nurses ( $\chi^2 = 7.94$ ,  $df = 1$ ,  $p < .05$ ;  $\chi^2 = 3.93$ ,  $df = 1$ ,  $p < .05$ ), and the recognition factor was more satisfactory to nurse managers than to staff nurses ( $\chi^2 = 6.74$ ,  $df = 1$ ,  $p < .01$ ).

On mean job-satisfaction scores: the factor of interpersonal relation with patients showed highest score in staff nurses (8.20,  $SD$ : 2.42), head nurses (8.70,  $SD$ : 1.84) and nurse managers (7.97,  $SD$ : 2.25), and the second high scores was the supervision-technical factor in staff nurses (7.19,  $SD$ : 2.35), the achievement factor in head nurses (7.98,  $SD$ : 2.31) and nurse managers (7.82,  $SD$ : 1.65). There were no significant difference between mean scores of the interpersonal relation factor with patients and that of the achievement, and the recognition.

(2) *On correlations among eighteen factors:* Figure 1, 2 and 3 showed the clusters of factors with high correlation coefficient (over  $r = .70$ ).

The achievement factor related closely to the factor of interpersonal relation with patients in staff nurses and nurse managers, with subordinates in head nurses. The recognition factor related

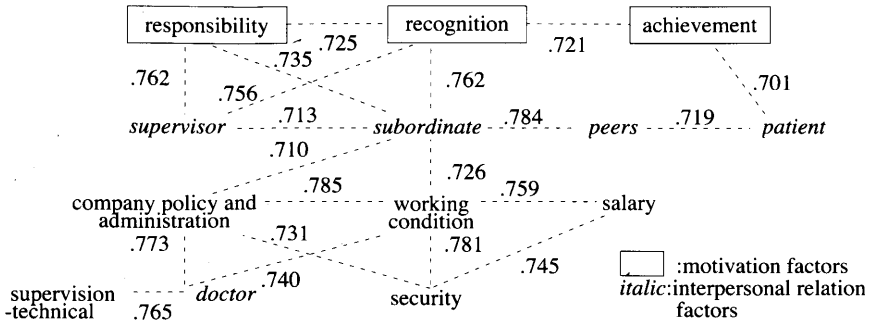


Fig. 1. Clusters of factors in staff nurses (N = 64).

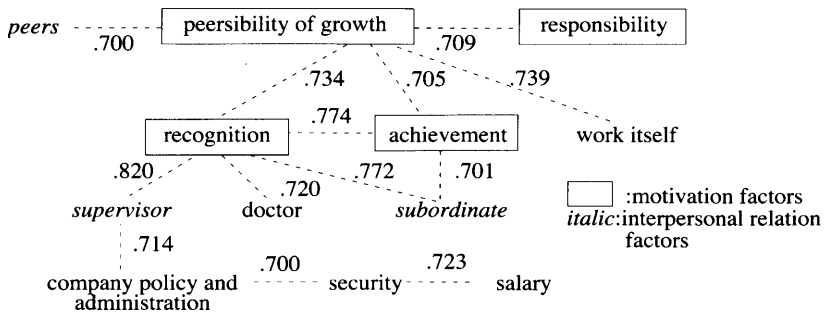


Fig. 2. Clusters of factors in head nurses (N = 57).

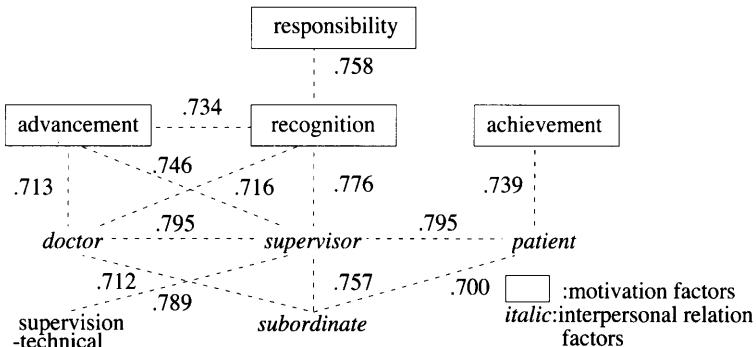


Fig. 3. Clusters of factors in nurse managers (N = 30).

positively to the factors of interpersonal relations with supervisors in all nurses, subordinates and doctors in head and nurse managers.

The responsibility factor related positively to the factor of interpersonal relations with supervisors in staff nurses, the possibility of growth with peers in head nurses.

## DISCUSSION

The factors which caused job-satisfaction in nurses and the efficiency of these factors were investigated by using the questionnaire consisted of eighteen factors (76 items) for one hundred fifty-one nurses. The results were analyzed on the position-levels of staff nurses, head nurses and nurse managers in the hospital.

The results showed that the interpersonal relationships were the factors of job satisfaction for nurses like the motivation factors of the M-H theory. And five factors of interpersonal relationship contributed significantly to nurses job satisfaction. Especially the interpersonal relationships with patients was the most important factor for all nurses. Consequently, the first hypothesis was sufficiently supported.

Next, the analysis of correlation coefficient (over  $r = .70$ ) among eighteen factors revealed that four motivation factors (achievement, recognition, responsibility and advancement) of the M-H theory were closely related the factors of interpersonal relationships with patients, supervisors, peers, subordinates and doctors on nurses' job satisfaction. However, there were a little difference among three position levels in the hospital on correlation coefficients of these factors. According to these results, it seems that the second hypothesis is almost supported.

Based on the analyses above, it is concluded that the main motivation factors of Herberg's M-H theory associates closely with the interpersonal relationships.

## EXPERIMENT 2

The findings of Exp.1 showed that the achievement and the recognition of motivation factor related closely to the interpersonal relation of hygiene factor of the M-H theory. According to the results of Exp.1 and Adachi and Oyamada (1996), it was necessary to divide the recognition factor into the recognition of job-achievements, the trust for the knowledge and the skill of nursing and the trust of nurse's personality. Two kinds of trusts are the recognition to the possibility of nurse's job-achievements in the future. The following unsolved problems were remained in Exp.1; (1) even if one may receive job-satisfaction by assistance of other persons, does the achievement bring job-satisfaction to nurses, (2) for the recognition and two kinds of trusts, who is the most significant person on the nurse's job satisfaction.

Then, the following four hypotheses were tested; (1) The job-achievement by assistance of other persons bring job satisfaction to nurses as well as with one's own efforts. (2) The recognition causes job satisfaction in nurses. (3) The trusts to nursing knowledge/skills and to nurses' personality lead nurses to job satisfaction. (4) A patient is the most important person to the recognition and two trusts in nurses.

## METHOD

*Subjects:* Subjects were consisted of one hundred thirty-five female registered nurses, namely one hundred thirteen staff nurses, twenty-two head and nurse managers (supervisors) at general hospitals.

*Procedures and questionnaire:* The questionnaire consisted of seventeen items concerning the achievement, the recognition and the trust.

The achievement consisted of two items regarding other person's assistance and one's own efforts. The recognition consisted of five items on the estimation of the jobs by patients and medical staff people (supervisors, peers, subordinates and doctors). The trust consisted of ten items; five items to estimate nurse's nursing knowledge and skills, and five items to estimate nurses' personality by patients and medical staff people.

Subjects were asked to choose the item which they had ever experienced job-satisfaction. The responses were coded as the job satisfaction when subjects reported "experienced" in each item. The research was performed in November, 1997.

## RESULTS

The response was analyzed on two position-levels of staff nurses, and head and nurse managers. The results were showed in Table 2. The following findings were obtained:

Table 2. Frequencies of the response "experienced" to achievements, recognitions and trusts.

factors	staff nurse (N = 113)	head & manager (N = 22)
Achievement :		
helping by others	92.9 (%)	100.0 (%)
one's effort	88.5	100.0
Recognition by others	95.6 (%)	100.0 (%)
by patient	92.9	100.0
supervisor	71.7	90.9
peers	76.1	86.4
subordinate	62.8	86.4
doctor	52.2	77.3
Trust-knowledge and skill	94.7 (%)	100.0 (%)
by patient	85.8	95.5
supervisor	71.7	86.0
peers	72.6	81.8
subordinate	63.7	86.4
doctor	53.1	68.2
Trust-personality	90.3	100.0
by patient	90.3	90.9
supervisor	75.2	86.4
peers	82.3	81.8
subordinate	68.1	86.4
doctor	56.6	72.7

(1) There were no significant difference on job-satisfaction between job-achievements by assistance of other persons and by one's own efforts, and between two position levels. Therefore, the job-achievement by assistance of other persons resulted in very high rate of job-satisfaction (over 92.9 %) to nurses, like the job-achievement by one's own efforts (over 88.5 %).

(2) The recognition for the job-achievement by patients and medical staff people led most nurses (over 95.6 %) to job-satisfaction. A patient was the most important person to such recognition. And there were significant differences among patients and medical staff people on the recognition (in staff nurses: between patients and supervisors,  $\chi^2 = 22.30$ ,  $df = 1$ ,  $p < .01$ ; and peers,  $\chi^2 = 16.33$ ,  $df = 1$ ,  $p < .01$ ; and subordinates,  $\chi^2 = 35.47$ ,  $df = 1$ ,  $p < .01$ ; and doctors,  $\chi^2 = 53.59$ ,  $df = 1$ ,  $p < .01$ ; in head and nurse managers: between patients and doctors,  $\chi^2 = 5.64$ ,  $df = 1$ ,  $p < .05$ ). The supervisors and the peers were more significant persons to the recognition than doctors in staff nurses ( $\chi^2 = 9.83$ ,  $df = 1$ ,  $p < .01$ ;  $\chi^2 = 15.30$ ,  $df = 1$ ,  $p < .01$ ). However, there were no significant difference among patients and medical staff people without doctors in head and nurse managers.

(3) The trust for nursing knowledge and skills by patients and medical staff people led most nurses (over 94.7%) to job-satisfaction. The trust by patients was more influential to job-satisfaction of nurses than that by the medical staff people. There were significant differences among patients and medical staff people (in staff nurses; between patients and supervisors,  $\chi^2 = 8.54$ ,  $df = 1$ ,  $p < .01$ ; and peers,  $\chi^2 = 7.69$ ,  $df = 1$ ,  $p < .05$ ; and subordinates,  $\chi^2 = 17.59$ ,  $df = 1$ ,  $p < .01$ ; and doctors,  $\chi^2 = 32.74$ ,  $df = 1$ ,  $p < .01$ ; in head and nurse managers: between patients and doctors,  $\chi^2 = 5.50$ ,  $df = 1$ ,  $p < .05$ ). The supervisors and the peers were more significant persons to the trust than doctors in staff nurses ( $\chi^2 = 9.19$ ,  $df = 1$ ,  $p < .01$ ;  $\chi^2 = 10.13$ ,  $df = 1$ ,  $p < .01$ ).

(4) The trust for nurses' personality by patients and medical staff people led most nurses (over 90.3%) to job-satisfaction. The trust by patients was more influential to job-satisfaction of nurses than that by medical staff people. There were significant differences among patients and medical staff people (in staff nurses; between patients and supervisors,  $\chi^2 = 18.55$ ,  $df = 1$ ,  $p < .01$ ; and peers,  $\chi^2 = 9.42$ ,  $df = 1$ ,  $p < .01$ ; and subordinates,  $\chi^2 = 28.49$ ,  $df = 1$ ,  $p < .01$ ; and doctors,  $\chi^2 = 46.70$ ,  $df = 1$ ,  $p < .01$ ). The supervisors, the peers and the subordinates were more significant persons to the trust than doctors in staff nurses ( $\chi^2 = 10.98$ ,  $df = 1$ ,  $p < .01$ ;  $\chi^2 = 32.25$ ,  $df = 1$ ,  $p < .01$ ;  $\chi^2 = 3.88$ ,  $df = 1$ ,  $p < .05$ ).

However, there were no significant difference among patients and medical staff people in head and nurse managers.

## DISCUSSION

The achievement, the recognition and the trust caused job-satisfactions in nurses. The achievement by assistance of other person led nurses to job-satisfactions as well as by one's own efforts. The patient was the most important person for the recognition of job-achievements and the trust for nursing knowledge and skills and for personality of nurses. The second significant persons were supervisors, peers and subordinates. Third was doctors. Then, it seemed that



these findings almost supported four hypotheses. The achievement and the recognition of motivation factors related closely to the interpersonal relation of hygiene factors of the M-H theory.

There were some differences between two position levels at hospital with regard to the effects of other persons to job-satisfaction. Therefore, it is inferred that the effects of other persons increase in accordance with the degrees of close interpersonal relationships to nurse's jobs.

### CONCLUSION

Some research of nurses' job satisfaction reported that the interpersonal relationships caused job satisfaction in nurses, contrary to the prediction of the M-H theory (Adachi & Oyamada, 1997; Hines, 1974; White & Maguire, 1973). However, it did not explained why the interpersonal relationship caused job-satisfaction in nurses by Herzberg (1971,1976), Herzberg et al. (1993) and other researchers.

Then, firstly, it was confirmed that the achievement and the recognition of main motivators of the M-H theory and the interpersonal relation were satisfiers to nurses jobs, and main motivators of the M-H theory related closely to the interpersonal relationships.

Secondly, when the achievement, the recognition and the trust associated with positive interpersonal relationships as other person's assistance to job-achievements and as the good estimation for nursing knowledge, skills and nurse's personality, the interpersonal relationships accelerated job satisfaction of nurses.

These results suggest that the positive interpersonal relationships is an accelerator or a positive reinforcer to fulfill the factors of the achievement and the recognition (included trusts) of the M-H theory. Presumably, it seems that the negative interpersonal relationships is an obstructers or a negative reinforcer to the fulfillment of motivation factors and lead nurses to job-dissatisfactions.

### REFERENCES

- Adachi, H., & Oyamada, T. **1996** An investigation of nurse's job satisfaction. *Annual Report of The Faculty of Education, Gifu University (Humanities and Social Science)*, **44**, 77-89. (in Japanese)
- Adachi, H., & Oyamada, T. **1997** Applications of Herzberg's dual-factor hypothesis to nurse's job satisfaction. *Annual Report of The Faculty of Education, Gifu University (Humanities and Social Science)*, **46**, 89-99. (in Japanese)
- Anderson, F. **1971** Factors in motivation to work across three occupational levels. In F. Herzberg (Ed.), *Work and the nature of man*. Cleveland and New York: The World Publishing Company, pp.115-118.
- Cronin-Stubbs, D. **1977** Job satisfaction and dissatisfaction among new graduate staff nurses. *Journal of Nursing Administration*, **7**, 44-49.
- Herzberg, F., Mausner, B., & Snyderman, B. B. **1959** *The motivation to work*. New York: John Wiley & Sons.
- Herzberg, F. **1971** *Work and the nature of man*. Cleveland and New York: The World Publishing Company.
- Herzberg, F. **1976** *The managerial choice: To be efficient and to be human*. Homewood, Illinois: Dow Jones-Irwin.

- Herzberg, F., Mausner, B., & Snyderman, B. B. **1993** *The motivation to work. With a new introduction by Frederick Herzberg*. New Brunswick, New Jersey: Transaction Publishers.
- Hines, C. H. **1974** Motivational influences in job satisfaction. *New Zealand Nursing Journal*, **67**, 18-20.
- Kosmo, R., & Behling, O. **1969** Single continuum job satisfaction vs. duality: An empirical test. *Personnel Psychology*, **22**, 327-334.
- Nishikawa, K. **1971** A study of job satisfaction: An empirical test of the Herzberg theory. *Japanese Journal of Psychology*, **41**, 285-294. (in Japanese)
- Stamps, P. L., Piedmont, E. B., Slavitt, D. B., & Haase, A. M. **1978** Measurement of work satisfaction among health professionals. *Medical Care*, **16**, 337-352.
- White, C. H., & Maguire, M. C. **1973** Job satisfaction and dissatisfaction among hospital nursing supervisors. *Nursing Research*, **22**, 25-30.

(Received February 6, 1998)

(Accepted April 15, 1998)